

FIG.1

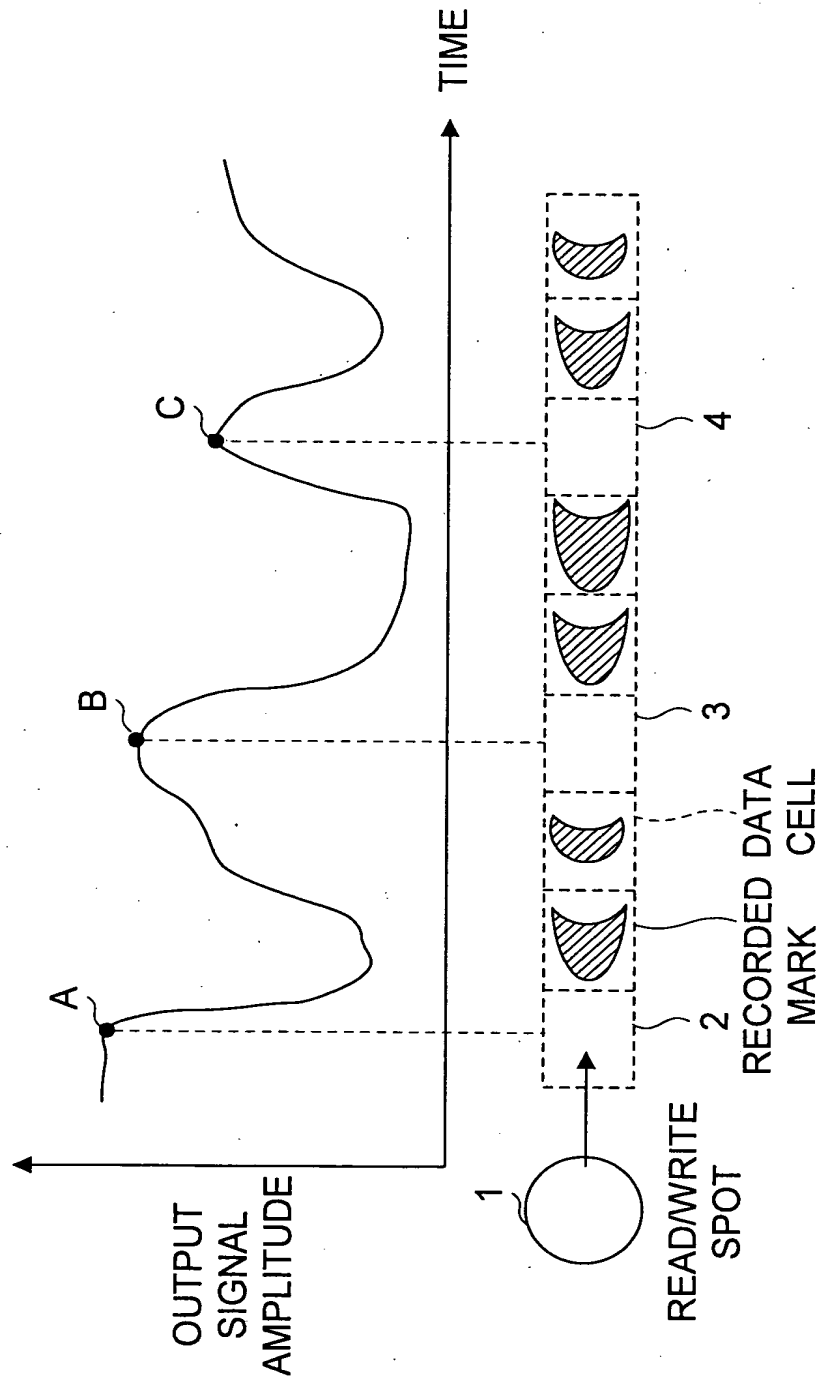


FIG.2

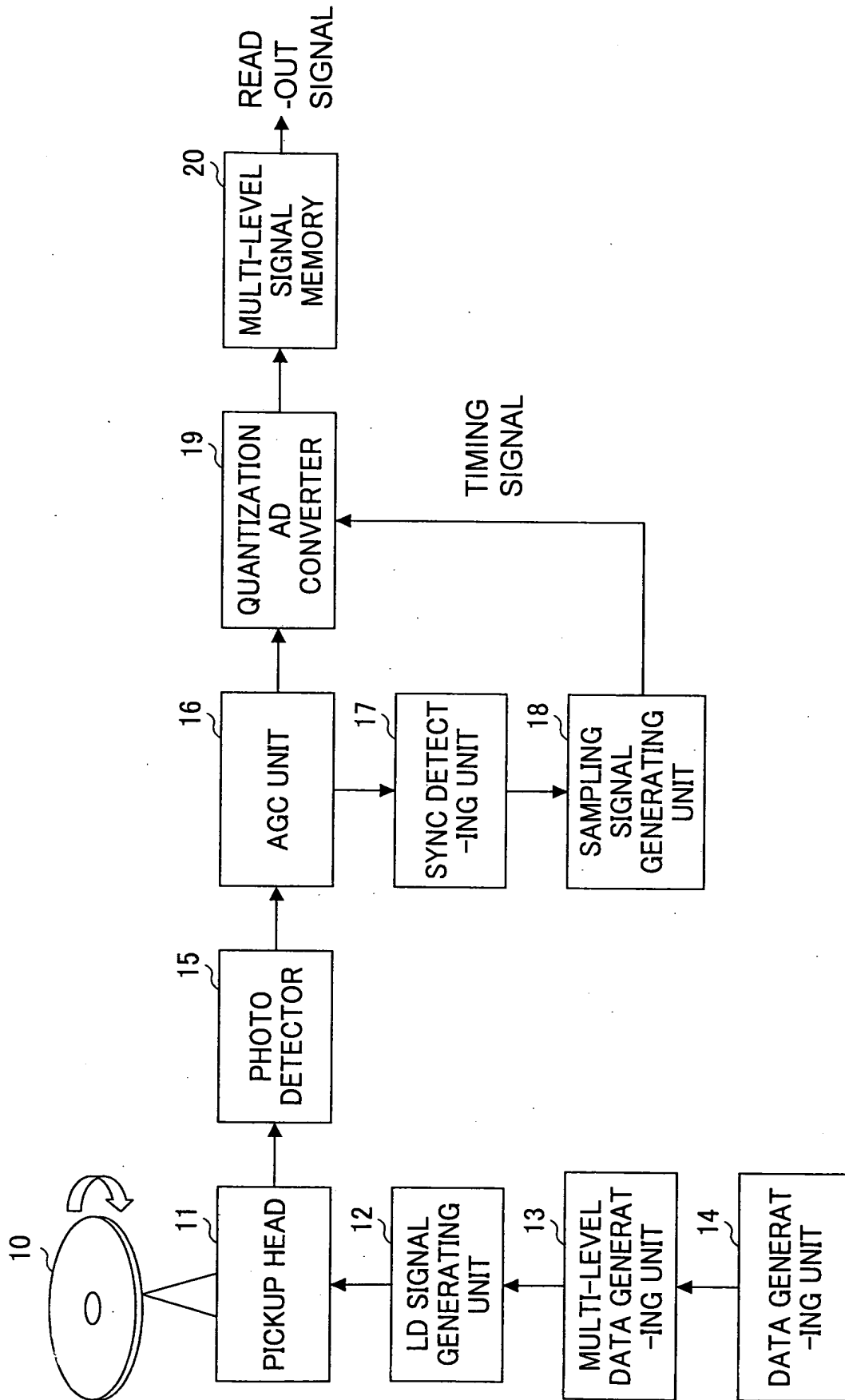


FIG.3

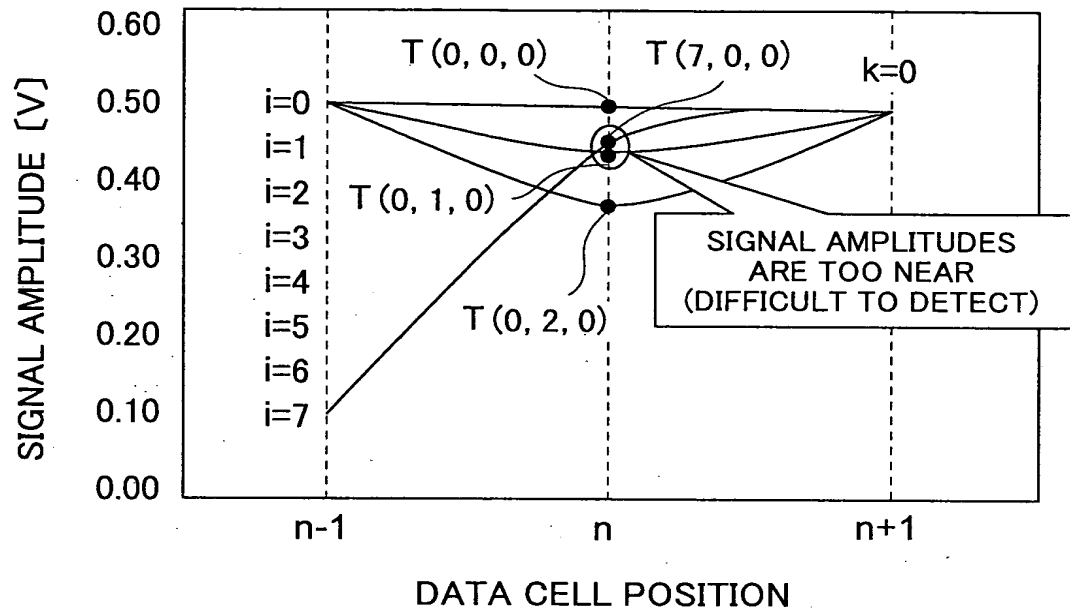


FIG.4A

TEST PATTERN SIGNAL

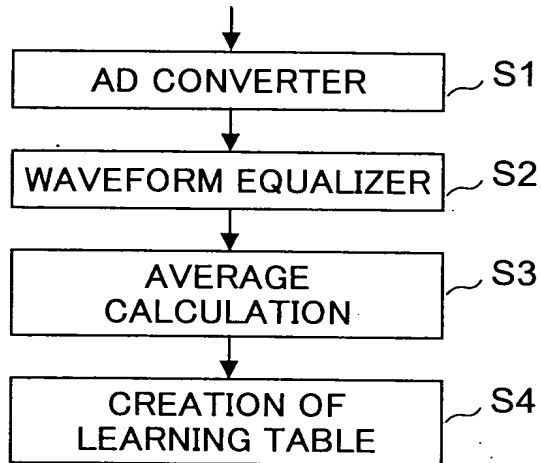


FIG.4B

LEARNING TABLE

No	i	j	k	Signal
1	0	0	0	T(0,0,0)
2	0	1	0	T(0,1,0)
3	0	2	0	T(0,2,0)
4	0	3	0	T(0,3,0)
5	0	4	0	T(0,4,0)
6	0	5	0	T(0,5,0)
7	0	6	0	T(0,6,0)
8	0	7	0	T(0,7,0)
9	1	0	0	T(1,0,0)
:	:	:	:	:
511	7	6	7	T(7,6,7)
512	7	7	7	T(7,7,7)

AVERAGE OF "n" DATA

FIG.5

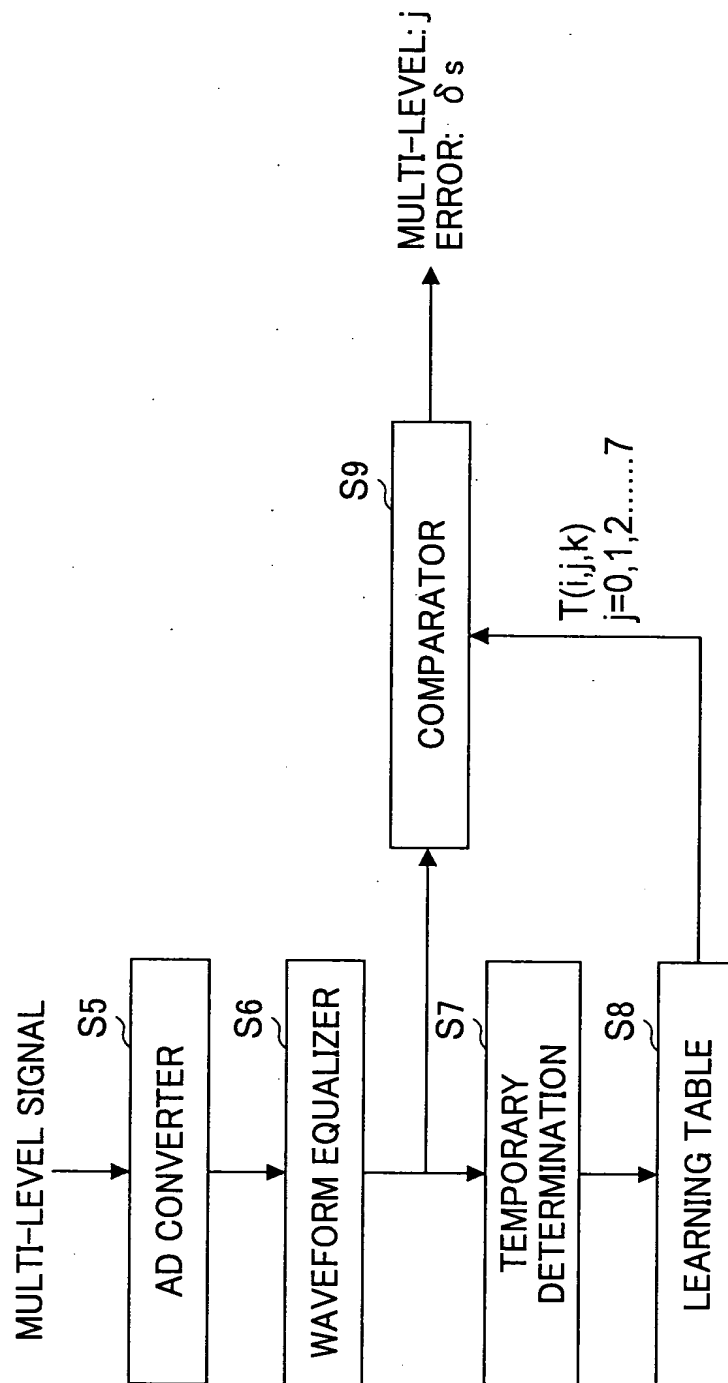


FIG.6

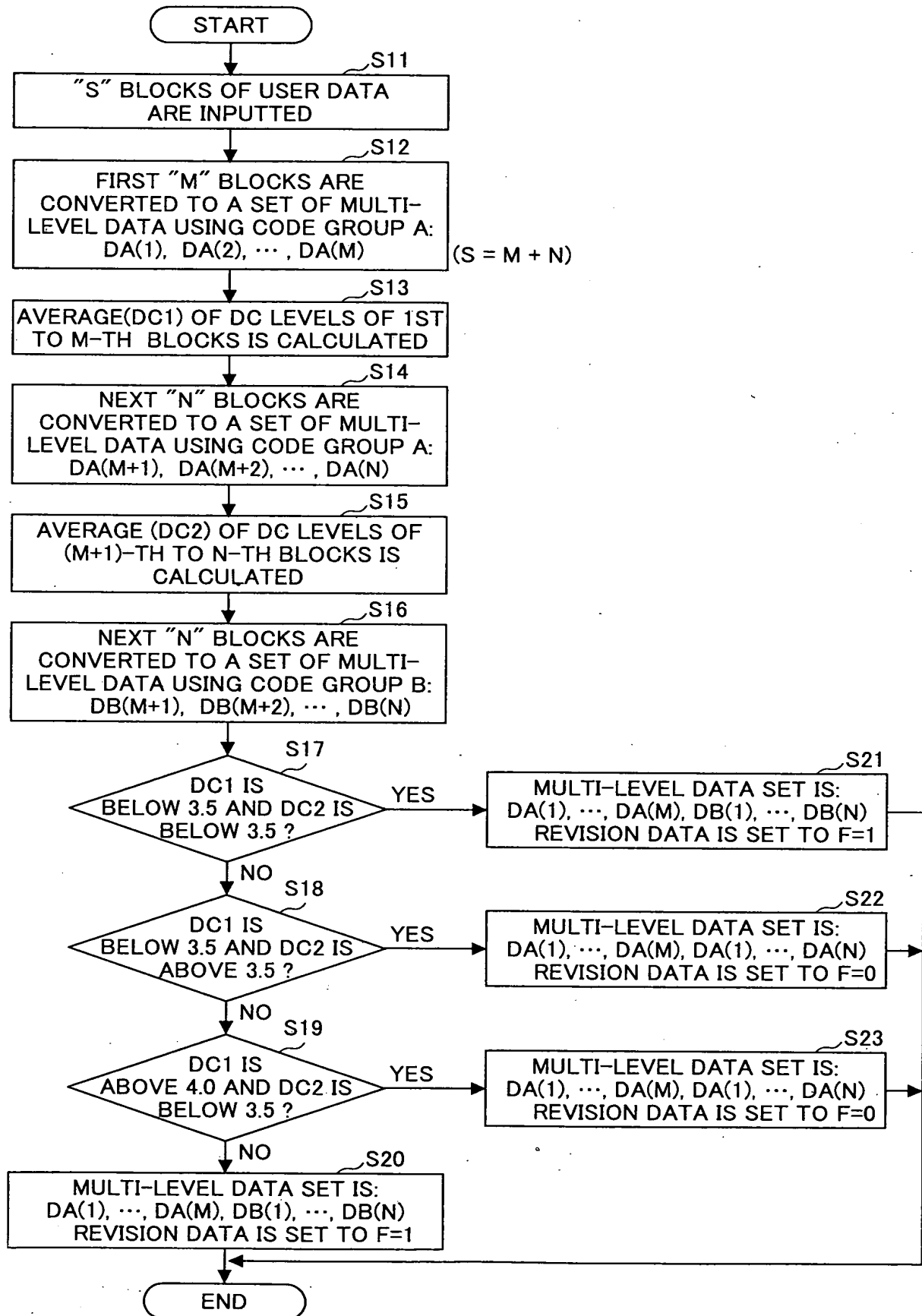


FIG.7

	CODE GROUP A				
USER	BLOCK				AVERAGE
DATA	S1	S2	S3	S4	DC LEVEL
0	1	1	1	1	1.0
1	1	1	1	3	1.5
2	1	1	1	5	2.0
3	1	1	1	7	2.5
4	1	1	3	1	1.5
5	1	1	3	3	2.0
6	1	1	3	5	2.5
7	1	1	3	7	3.0
8	1	1	5	1	2.0
9	1	1	5	3	2.5
10	1	1	5	5	3.0
11	1	1	5	7	3.5
12	1	1	7	1	2.5
13	1	1	7	3	3.0
14	1	1	7	5	3.5
15	1	1	7	7	4.0
16	1	3	1	1	1.5
17	1	3	1	3	2.0

(OMITTED)

2036	6	6	2	0	3.5
2037	6	6	2	2	4.0
2038	6	6	2	4	4.5
2039	6	6	2	6	5.0
2040	6	6	4	0	4.0
2041	6	6	4	2	4.5
2042	6	6	4	4	5.0
2043	6	6	4	6	5.5
2044	6	6	6	0	4.5
2045	6	6	6	2	5.0
2046	6	6	6	4	5.5
2047	6	6	6	6	6.0

	CODE GROUP B				
USER	BLOCK				AVERAGE
DATA	S1	S2	S3	S4	DC LEVEL
0	6	6	6	7	6.3
1	6	6	6	5	5.8
2	6	6	6	3	5.3
3	6	6	6	1	4.8
4	6	6	4	7	5.8
5	6	6	4	5	5.3
6	6	6	4	3	4.8
7	6	6	4	1	4.3
8	6	6	2	7	5.3
9	6	6	2	5	4.8
10	6	6	2	3	4.3
11	6	6	2	1	3.8
12	6	6	0	7	4.8
13	6	6	0	5	4.3
14	6	6	0	3	3.8
15	6	6	0	1	3.3
16	6	4	6	7	5.8
17	6	4	6	5	5.3

(OMITTED)

2036	1	1	5	6	3.3
2037	1	1	5	4	2.8
2038	1	1	5	2	2.3
2039	1	1	5	0	1.8
2040	1	1	3	6	2.8
2041	1	1	3	4	2.3
2042	1	1	3	2	1.8
2043	1	1	3	0	1.3
2044	1	1	1	6	2.3
2045	1	1	1	4	1.8
2046	1	1	1	2	1.3
2047	1	1	1	0	0.8

FIG.8

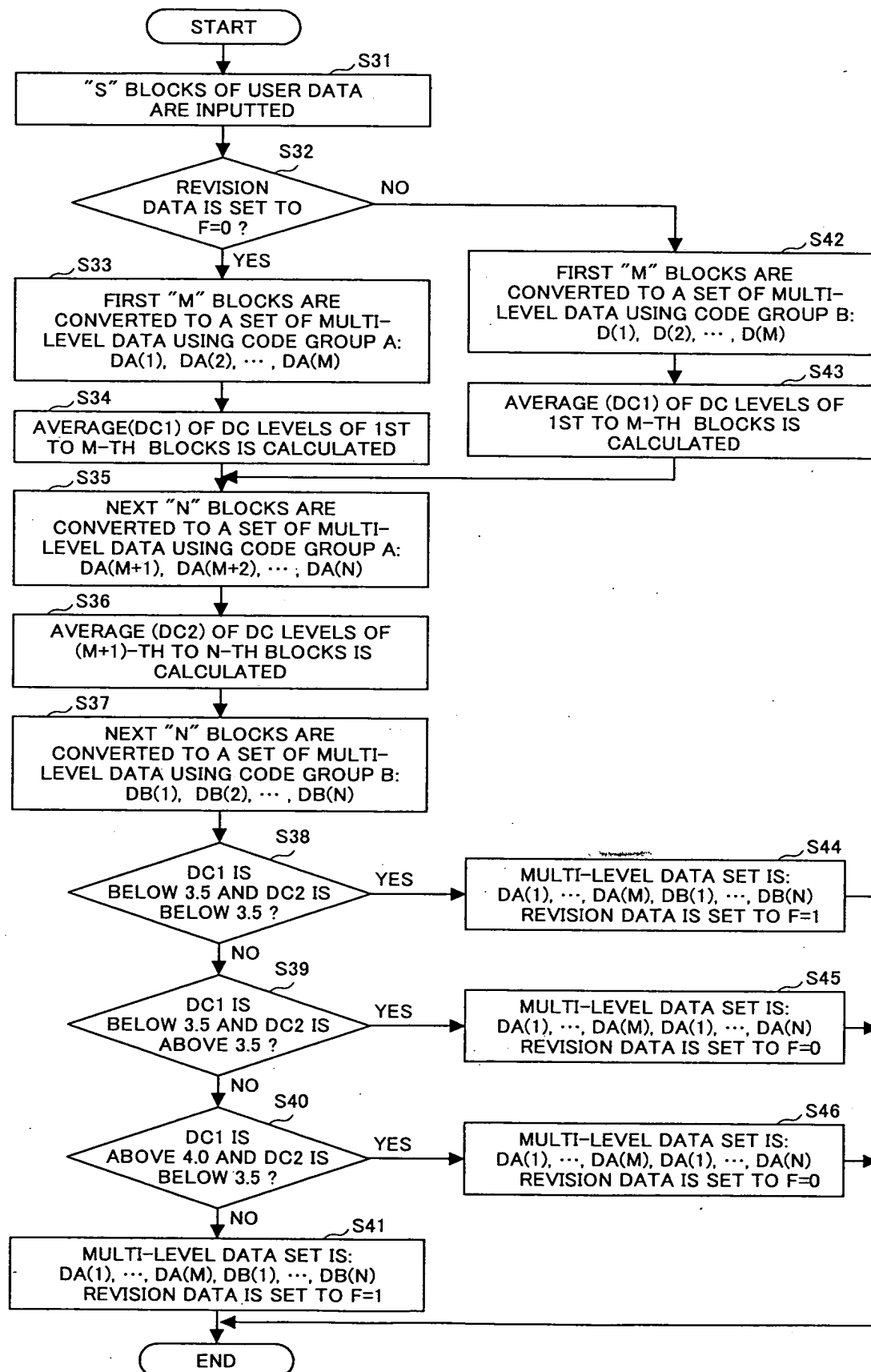


FIG.9

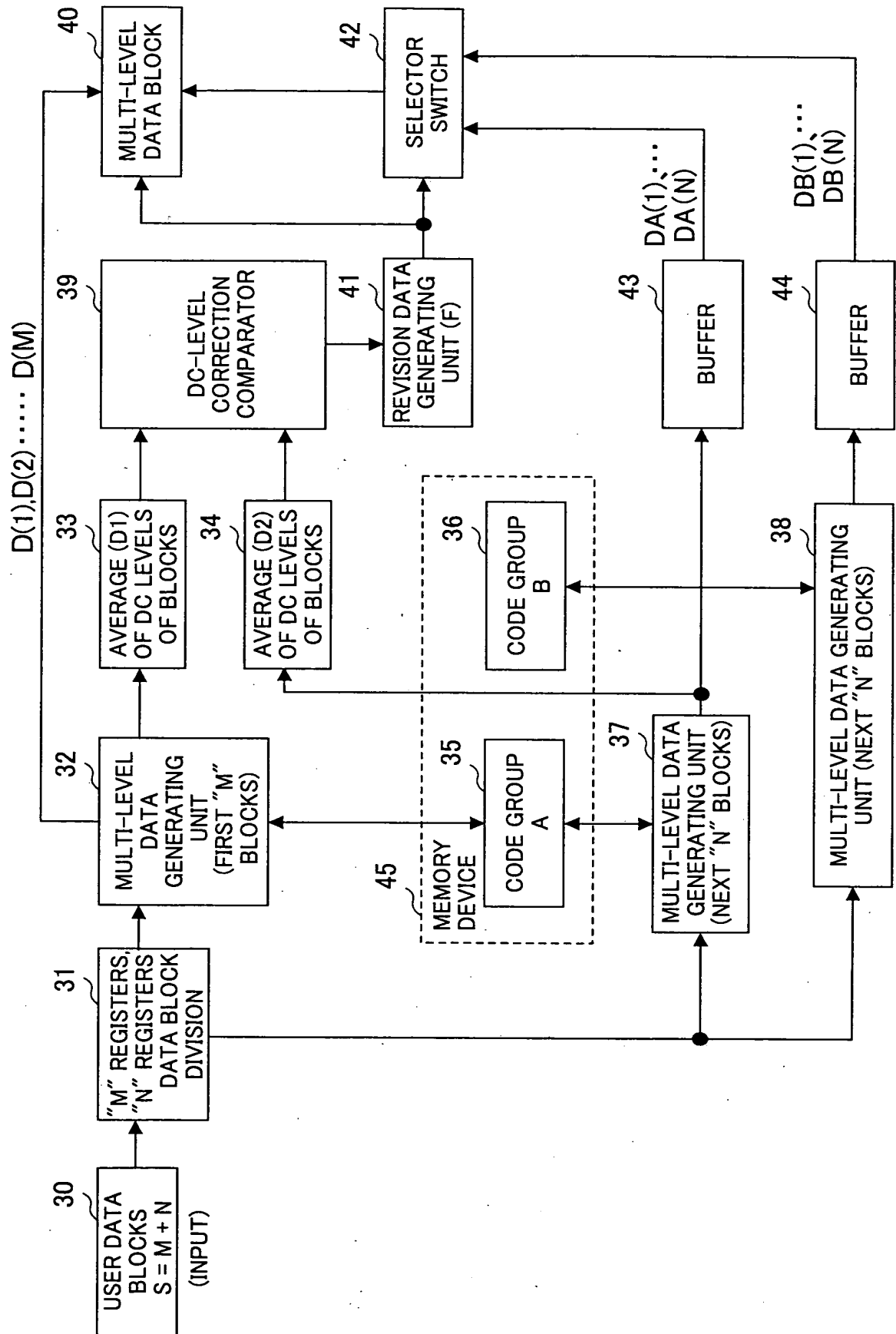


FIG.10

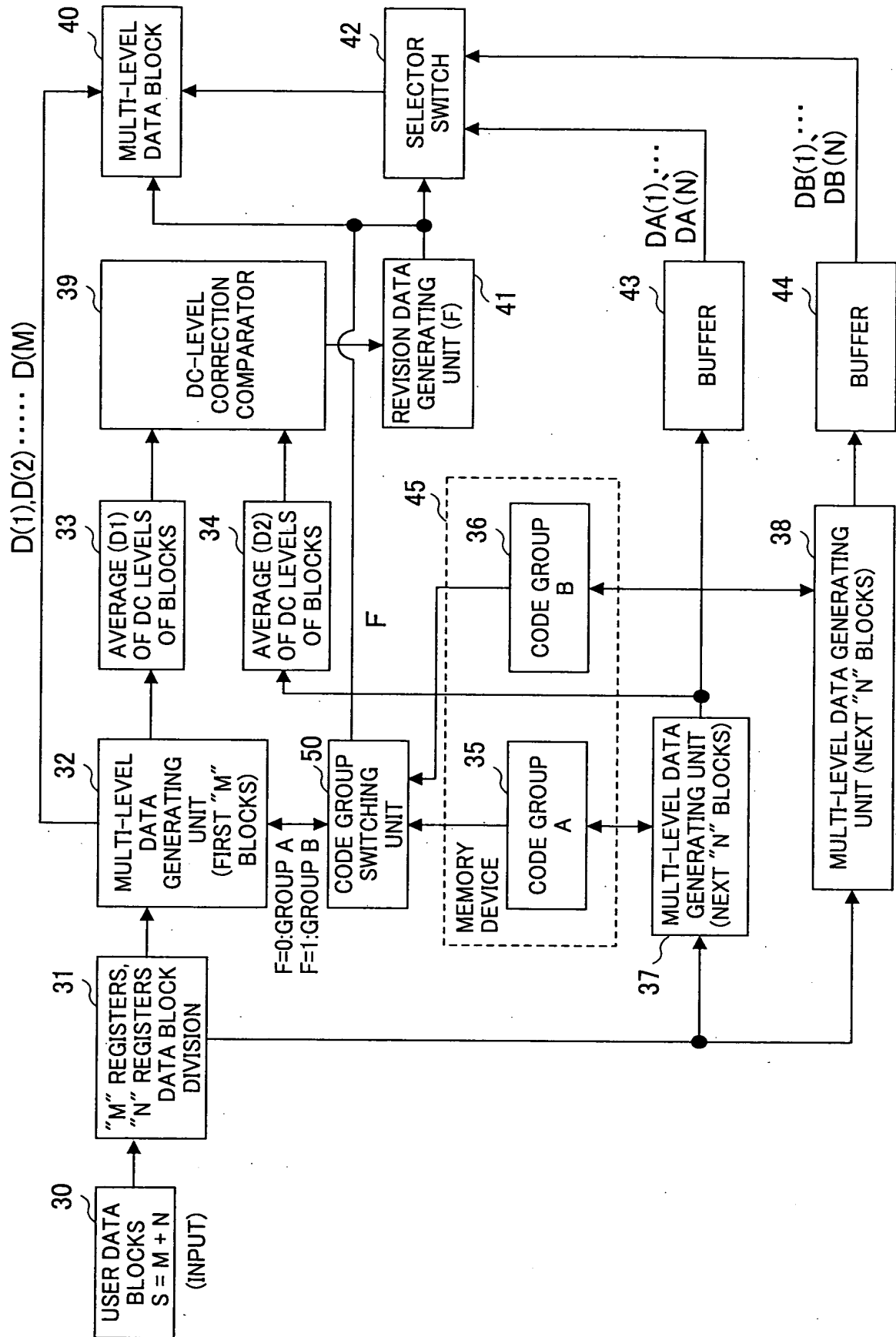


FIG.11

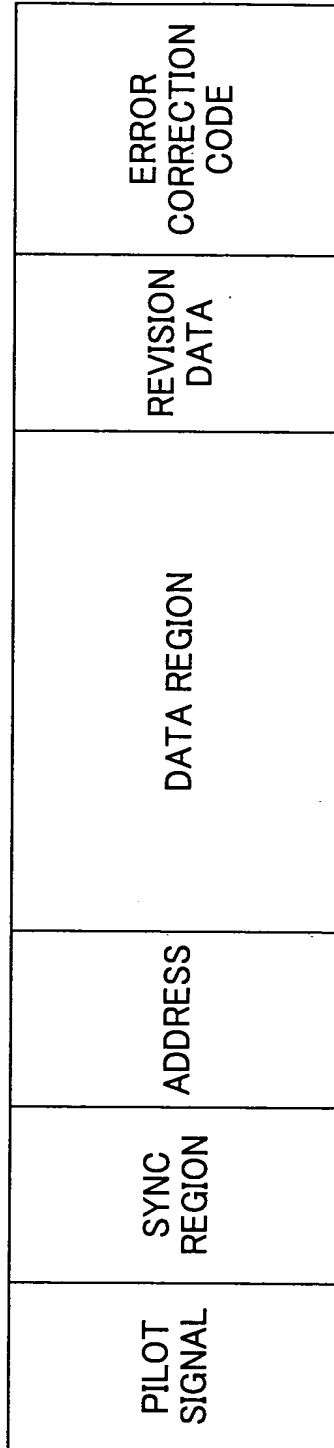


FIG.12

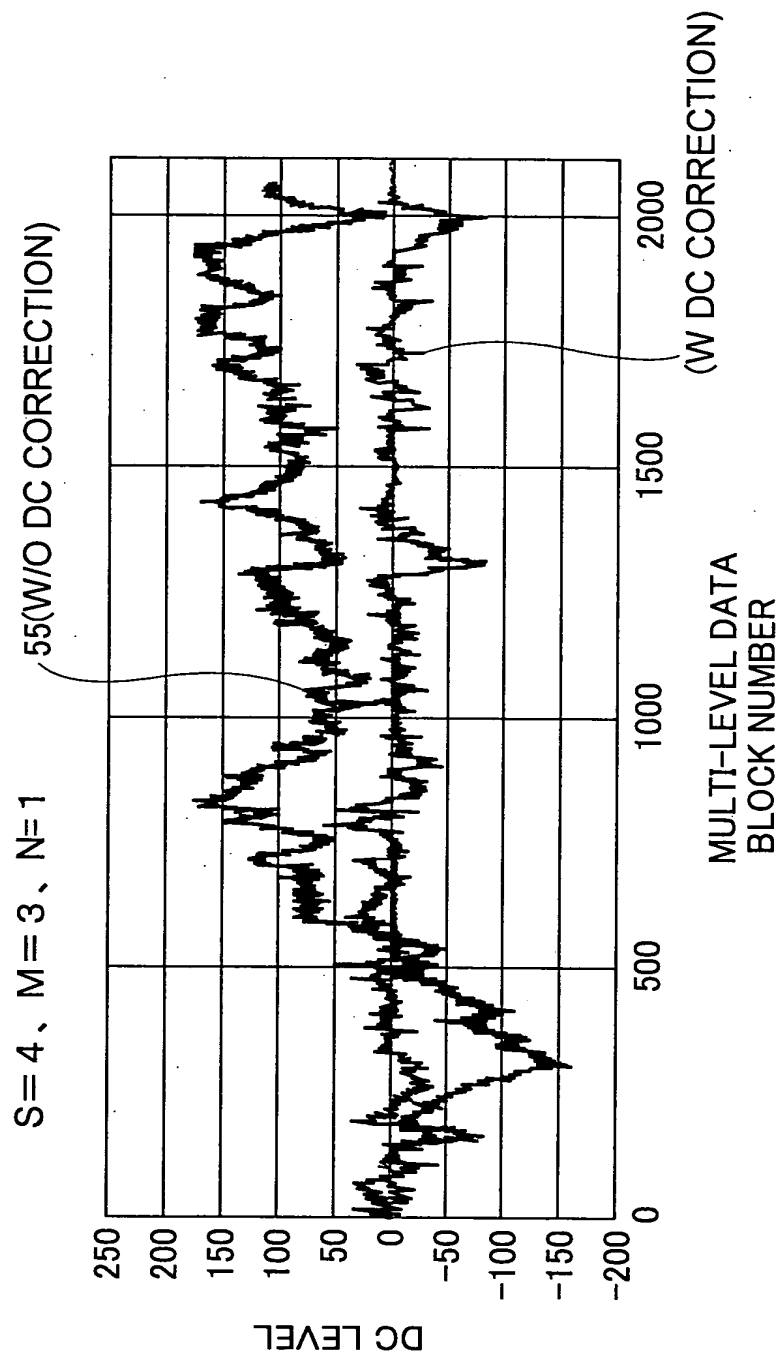
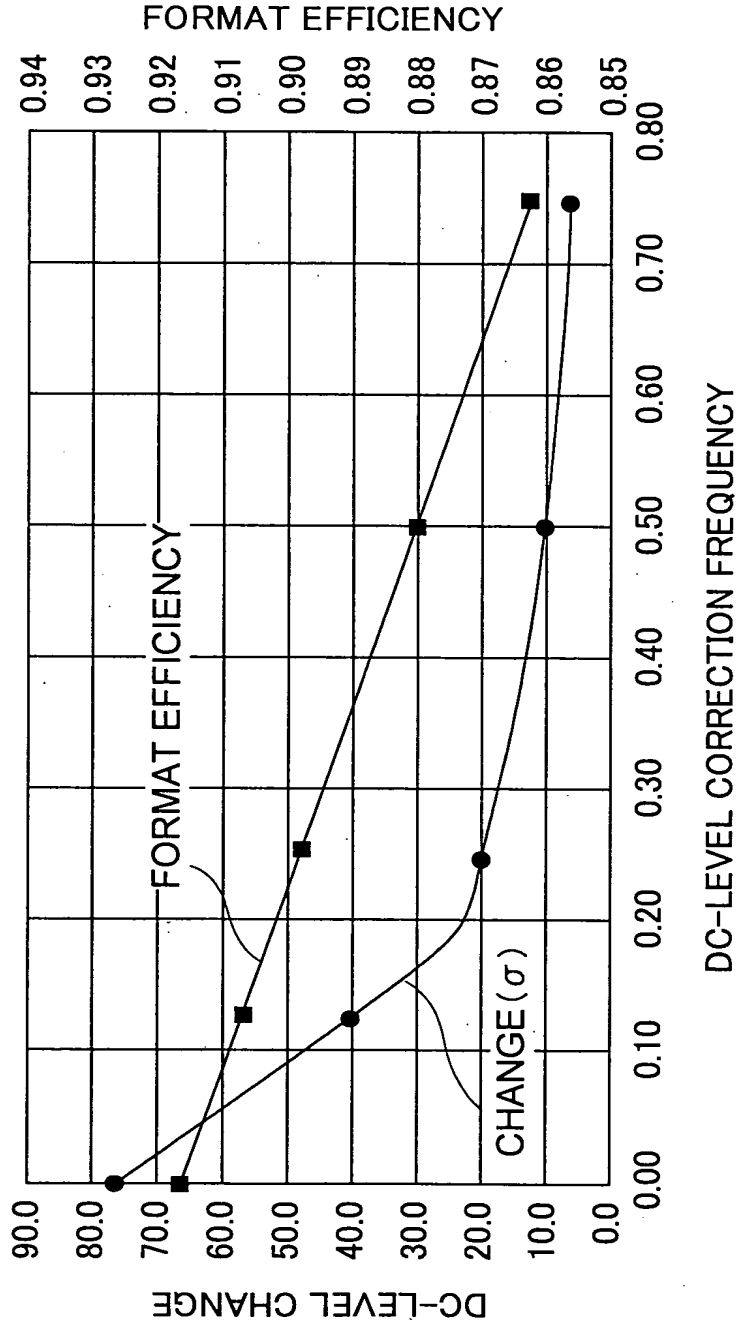


FIG.13



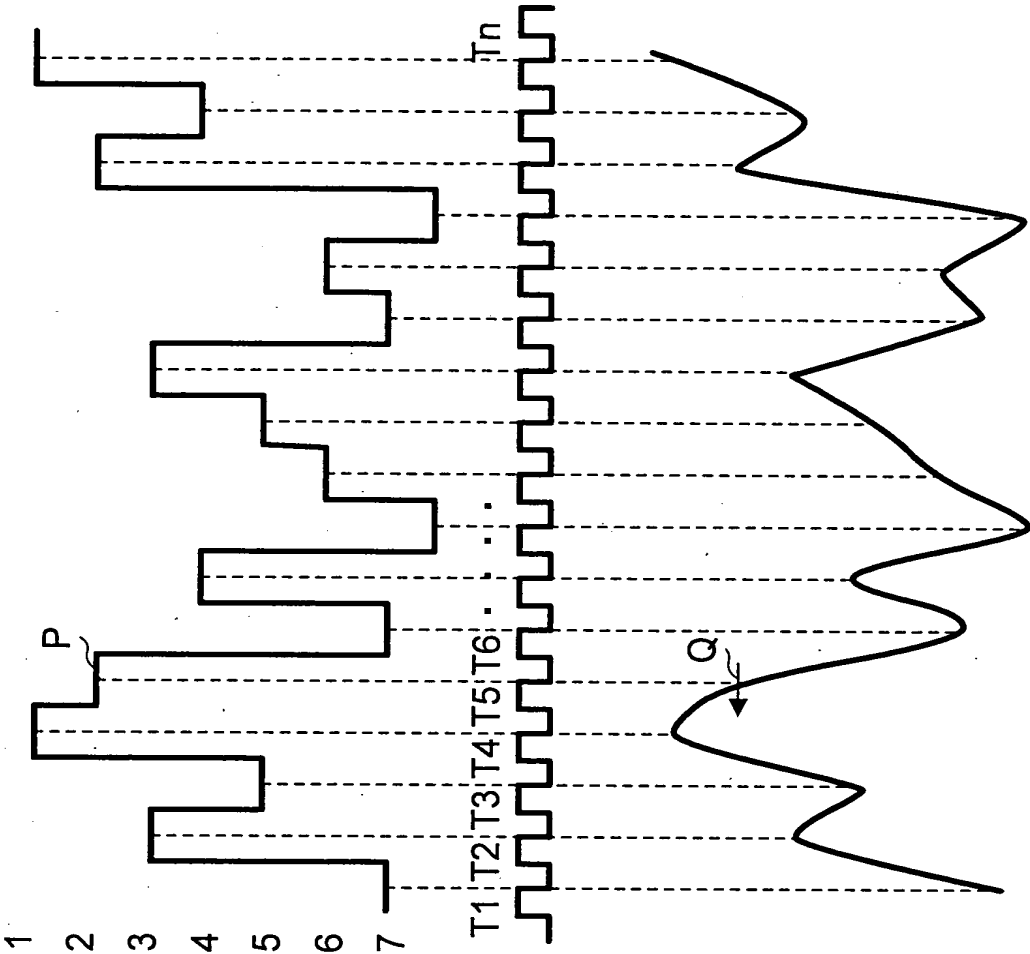


FIG.14A

FIG.14B

FIG.14C

FIG.15

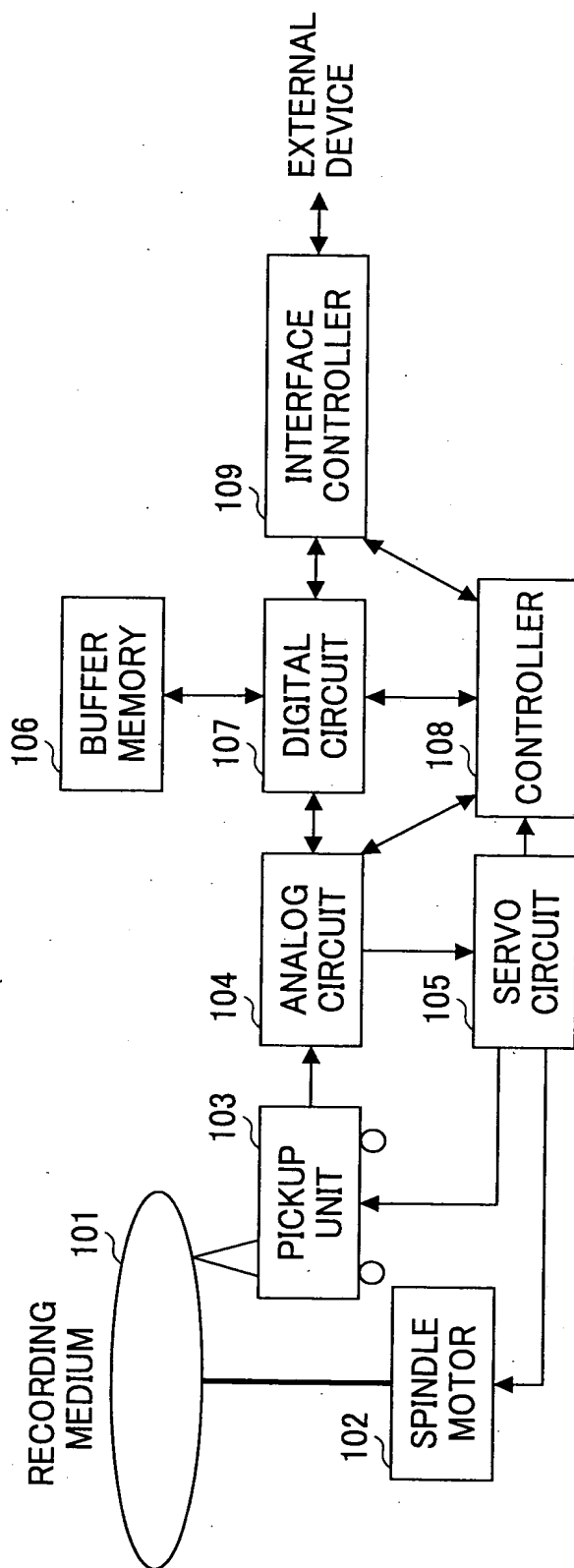


FIG.16

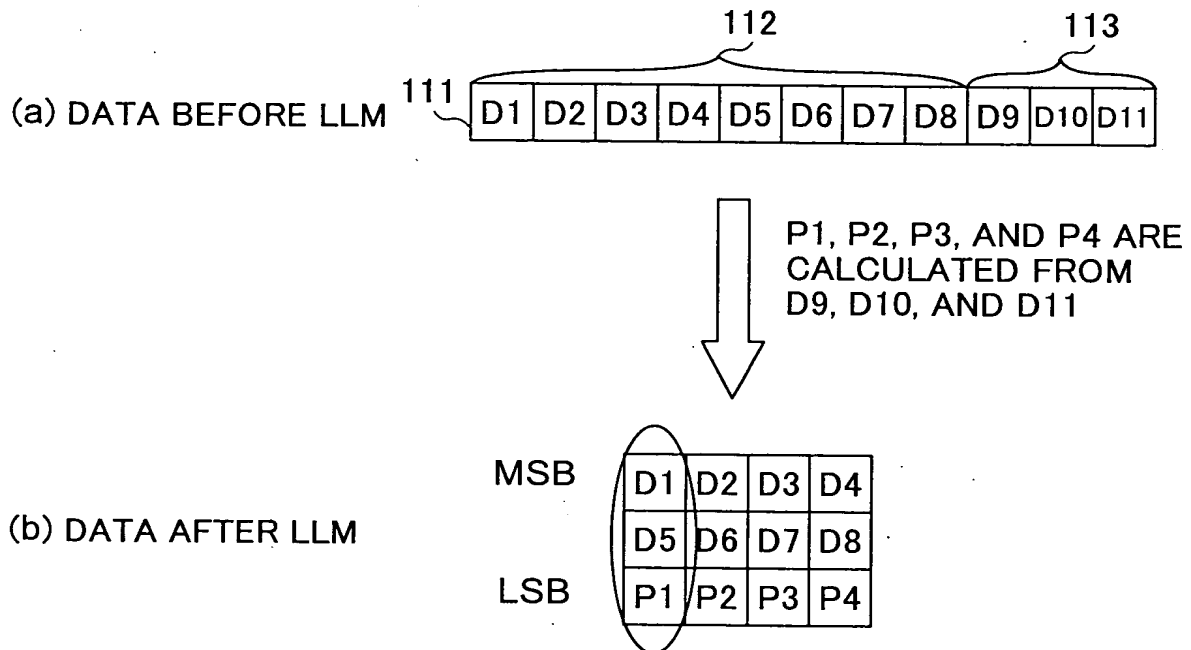


FIG.17

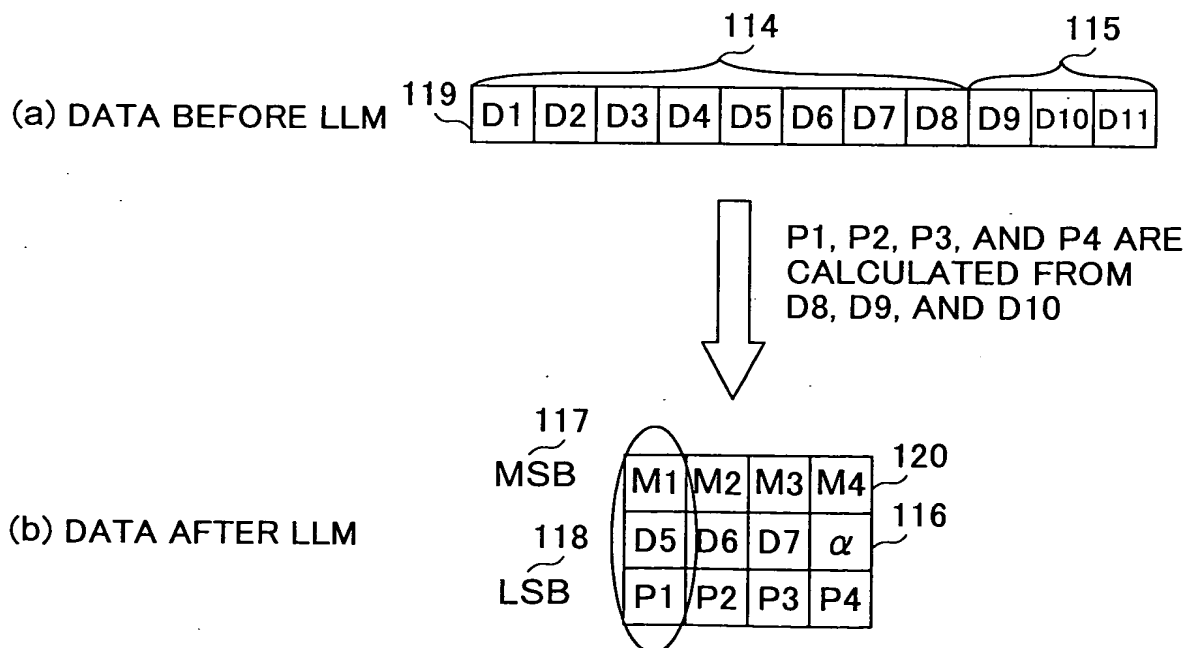


FIG.18

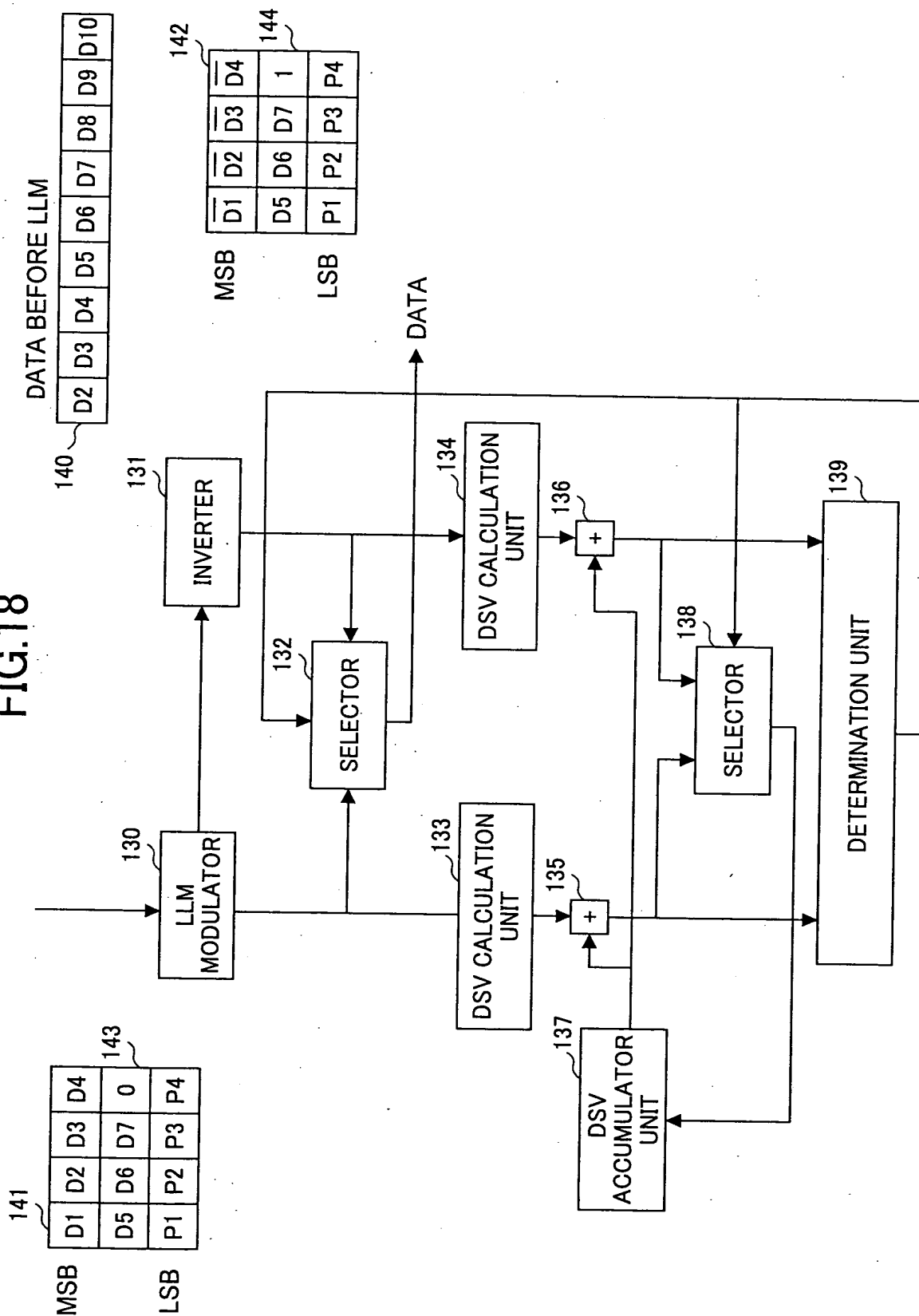


FIG.19

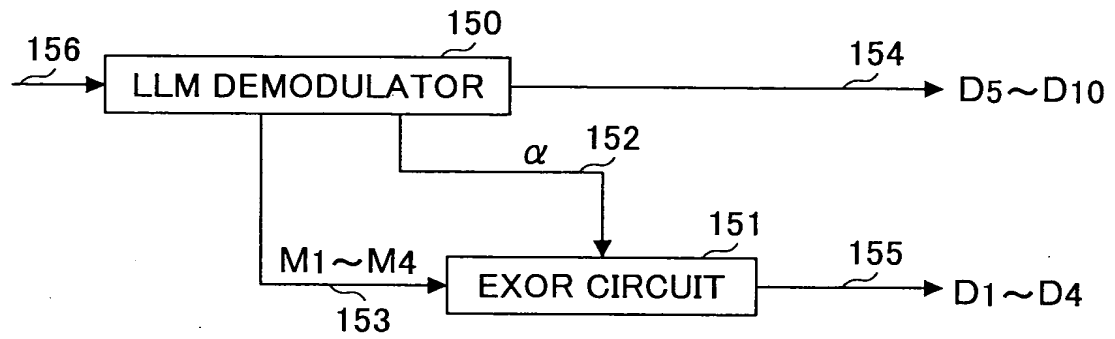


FIG.20

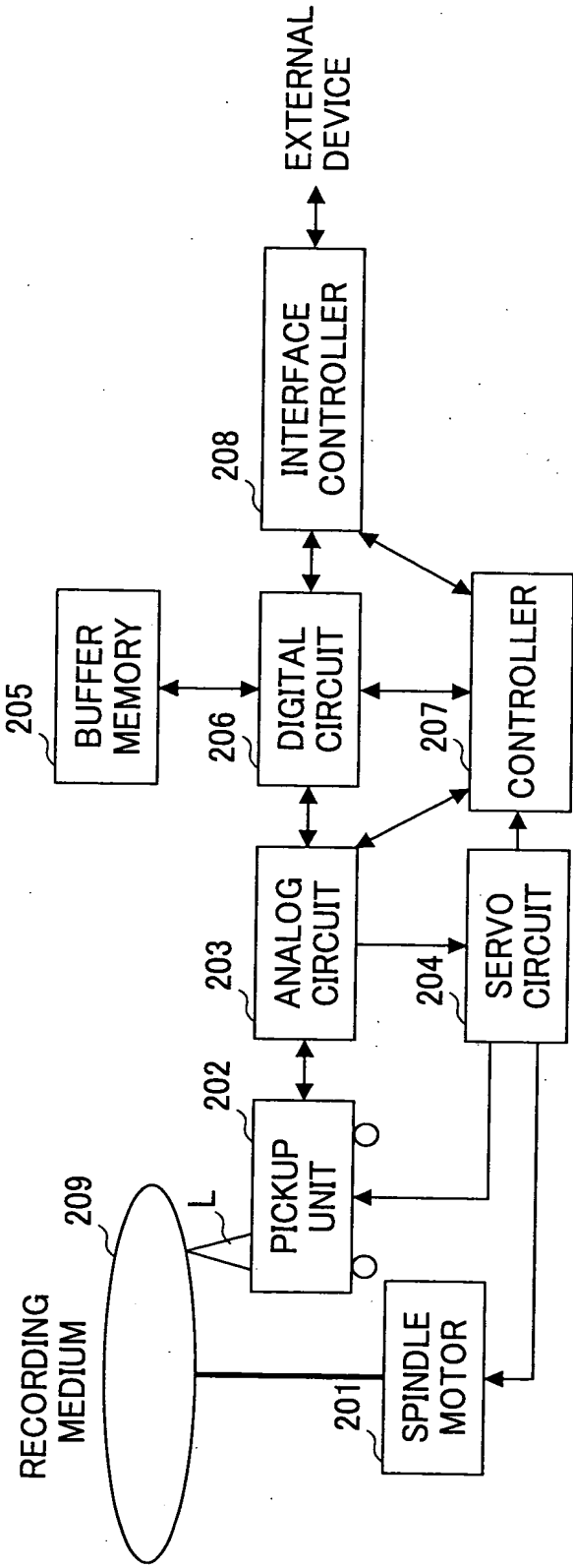


FIG.21

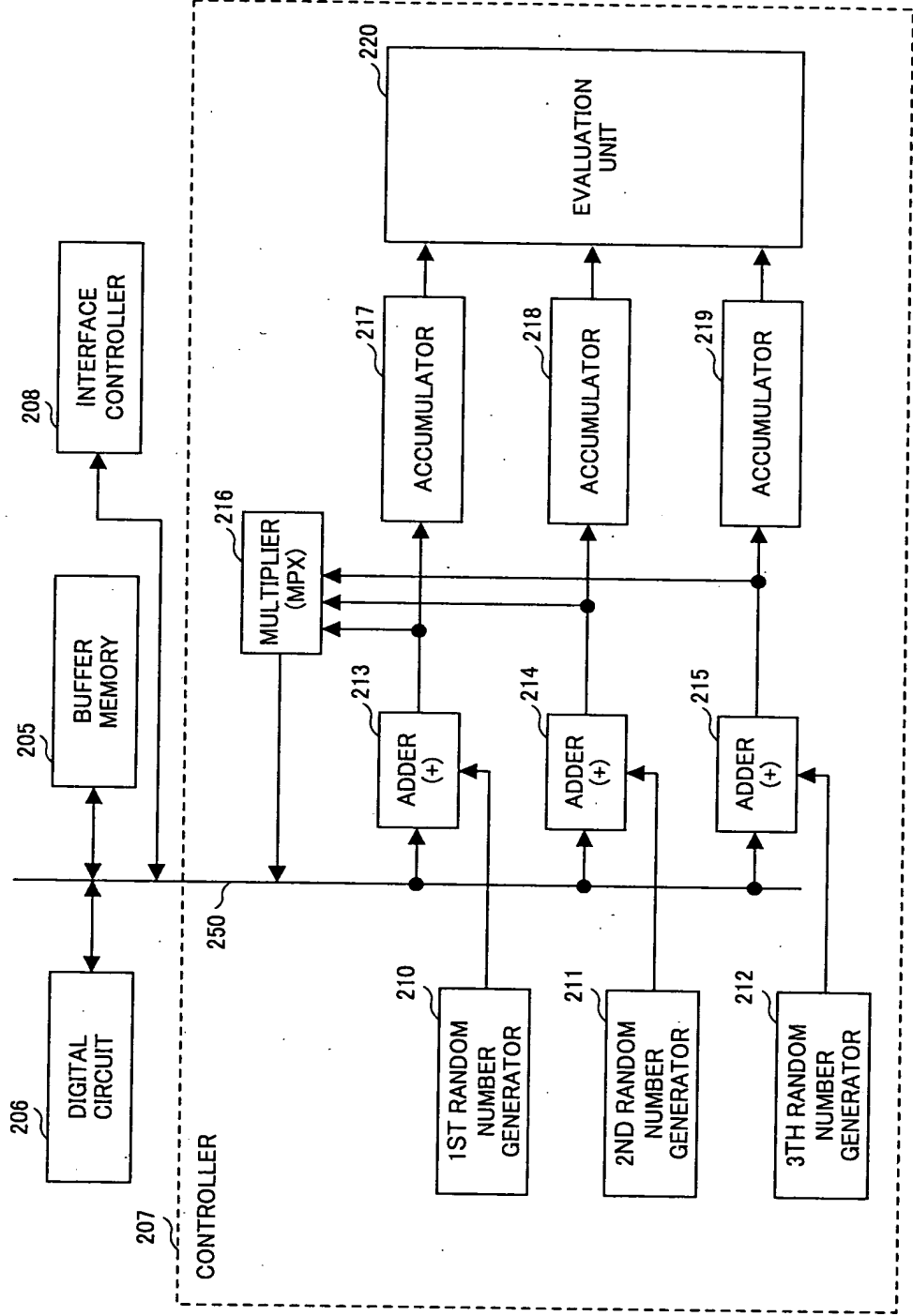


FIG.22

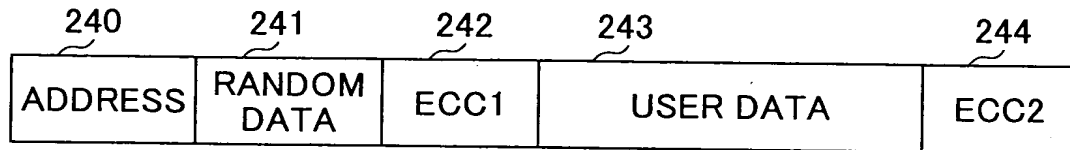


FIG.23

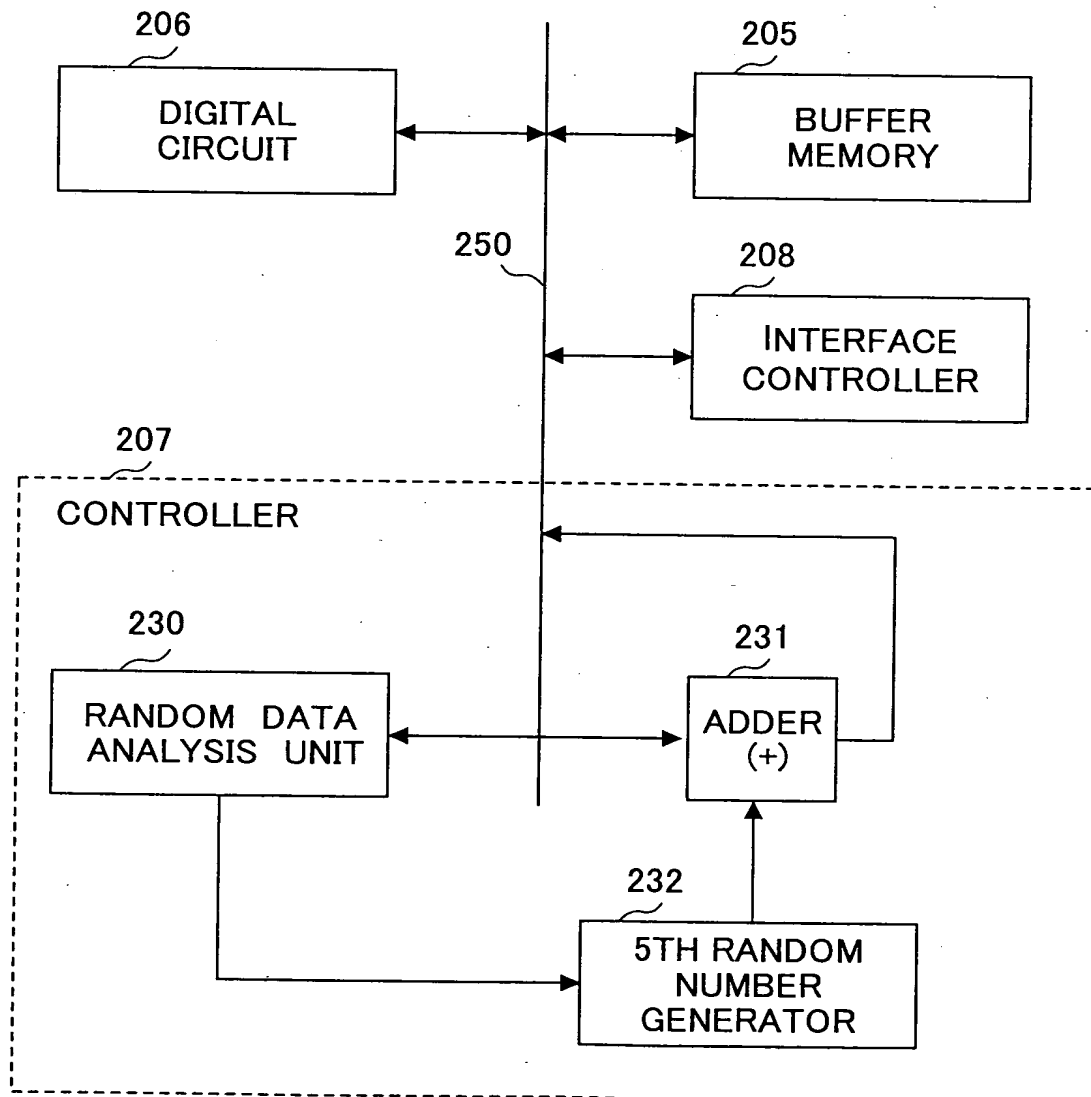


FIG.24

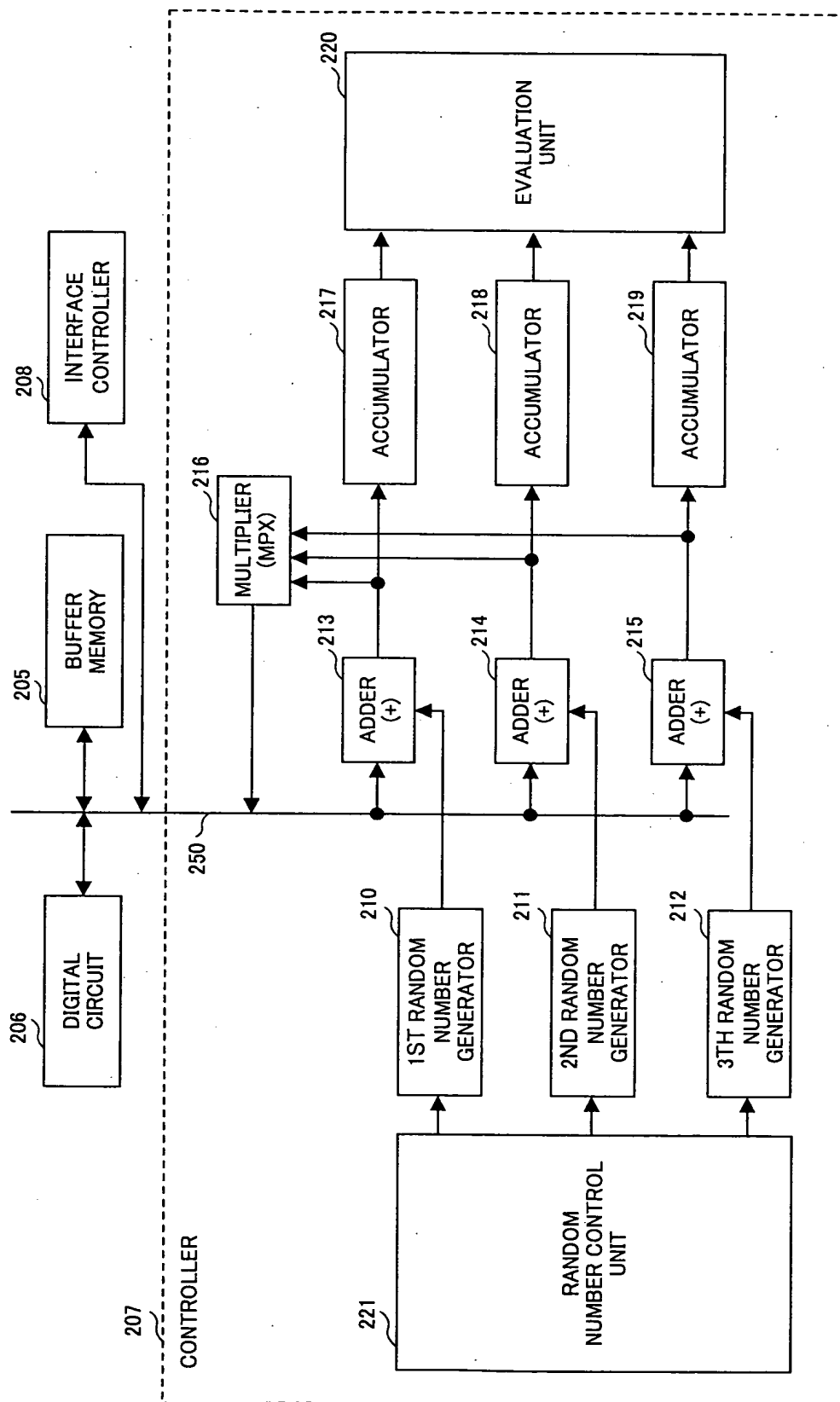


FIG.25

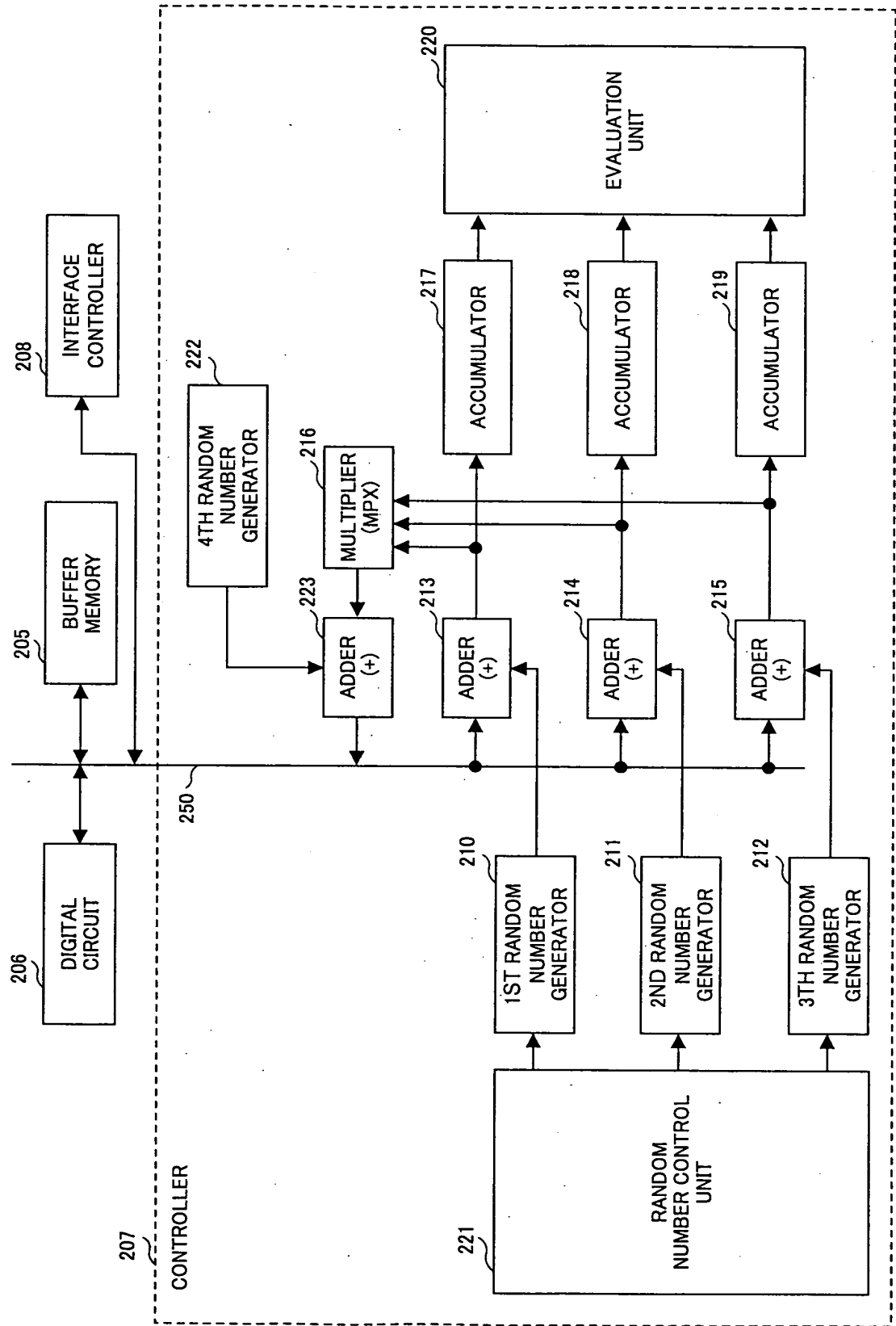


FIG.26

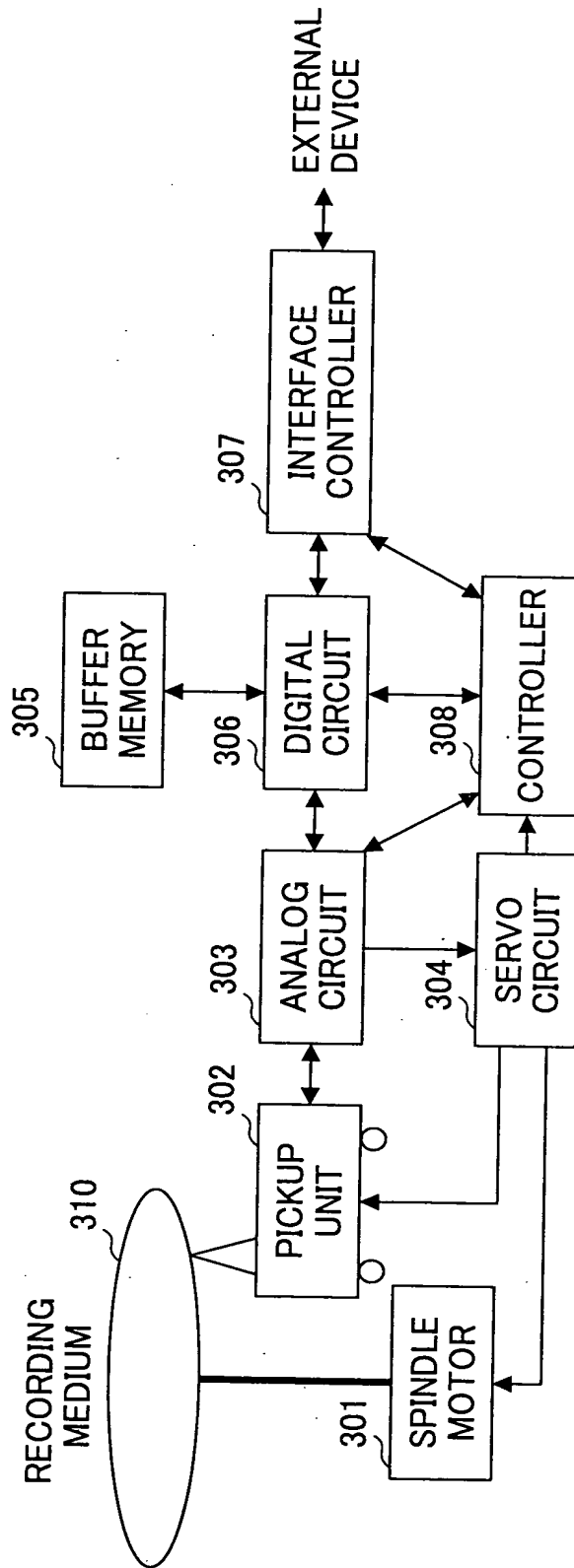


FIG.27

(a) DATA BEFORE LLM

D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11
----	----	----	----	----	----	----	----	----	-----	-----



P1, P2, P3, AND P4 ARE
CALCULATED FROM
D9, D10, AND D11

(b) DATA AFTER LLM

MSB	D1	D2	D3	D4
	D5	D6	D7	D8
LSB	P1	P2	P3	P4

FIG.28A

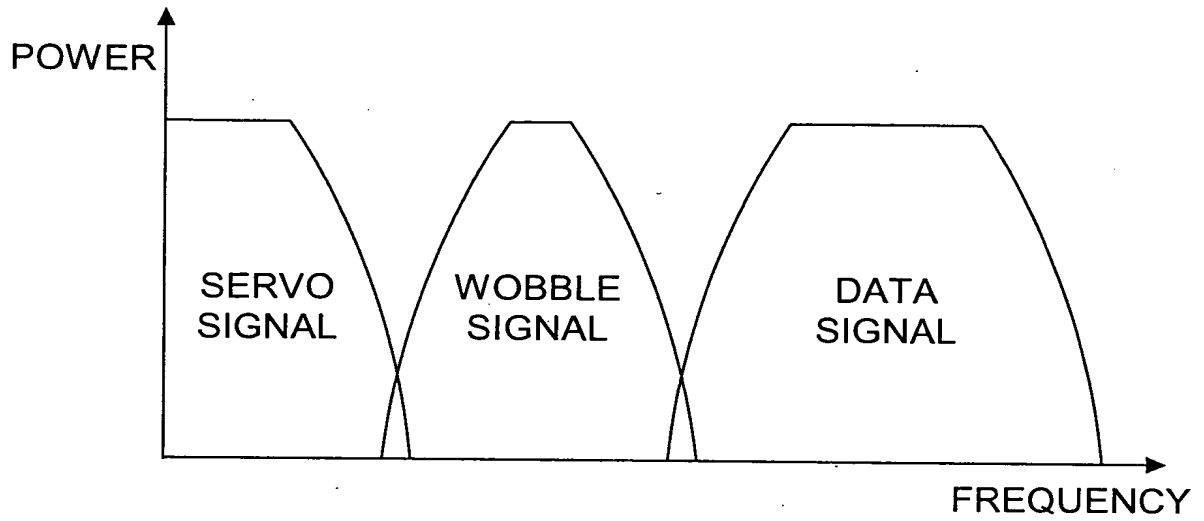


FIG.28B

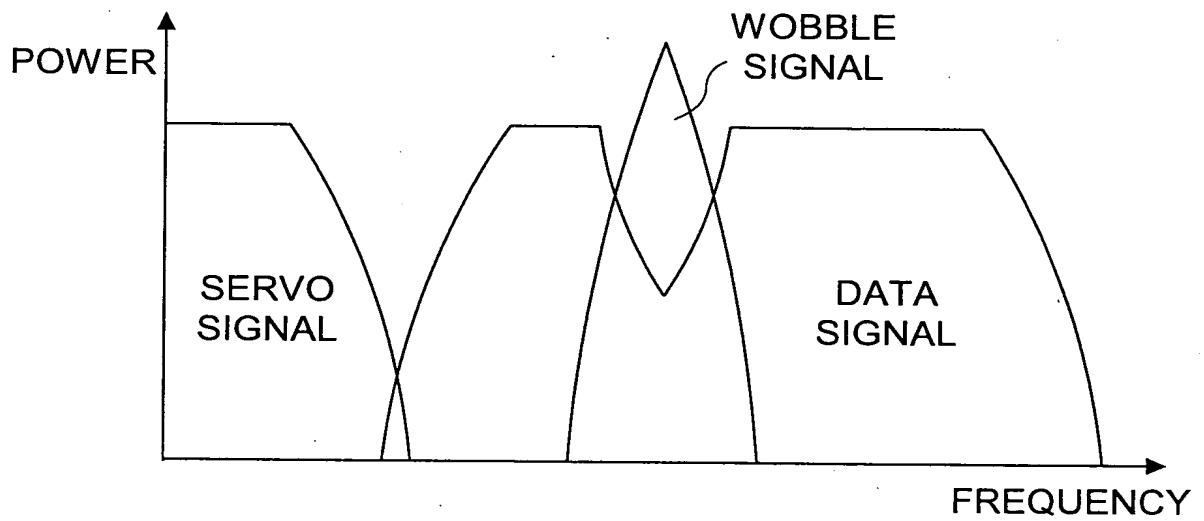


FIG.29

(a) DATA BEFORE LLM

D1	D2	D3	D4	D5	D6	D7	D8	D9	D10
----	----	----	----	----	----	----	----	----	-----



P1, P2, P3, AND P4 ARE
 CALCULATED FROM
 D8, D9, AND D10

M1=D1 EXOR F
 M2=D2 EXOR F
 M3=D3 EXOR F
 M4=D4 EXOR F
 M5=D5 EXOR F
 M6=D6 EXOR F
 M7=D7 EXOR F

(b) DATA AFTER LLM

MSB

M1	M2	M3	F
M4	M5	M6	M7
P1	P2	P3	P4

LSB

FIG.30

